

REMARKS

Claims 1-16 and 21-25 are pending in the application.

Claims 9-11 and 25 are rejected under 35 U.S.C. 112, ¶1, as failing to comply with the written description requirement.

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Izumi (U.S. Patent 6,466,348 B1, hereinafter "Izumi") in view of Milton (U.S. Patent 6,631,018 B1, hereinafter, "Milton") in view of Admitted Prior Art (page 15, lines 15-18, hereinafter "APA") and further in view of Sato (U.S. Patent 5,491,686, hereinafter "Sato").

Claims 1, 6, 9, 12-16 and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izumi in view of Milton and APA, and further in view of Sato.

Claims 2-5, 7-8, and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izumi in view of Milton in view of APA and Sato and further in view of Darcie (U.S. Patent US 4,701,904, hereinafter "Darcie").

Each of the various rejections is overcome by various amendments and/or arguments that are presented.

Entry of this Amendment is proper under 37 CFR 1.116 since the amendment: (a) places the application in condition for allowance for the reasons discussed herein; (b) does not raise any new issue requiring further search and/or consideration since the amendments amplify issues previously discussed throughout prosecution; (c) satisfies a requirement of form asserted in the previous Office Action; (d) does not present any additional claims without canceling a corresponding number of finally rejected claims; or (e) places the application in better form for appeal, should an appeal be necessary. The amendment is necessary and was not earlier presented because it is made in response to arguments raised in the final rejection. Entry of the amendment is thus respectfully requested.

Any amendments to any claim for reasons other than as expressly recited herein as being for the purpose of distinguishing such claim from known prior art are not being made with an intent to change in any way the literal scope of such claims or the range of equivalents for such claims. They are being made simply to present language that is better in conformance with the form requirements of Title 35 of the United States Code or is simply clearer and easier to understand than the originally presented language. Any amendments to any claim expressly made in order to distinguish such claim from known prior art are being

made only with an intent to change the literal scope of such claim in the most minimal way, i.e., to just avoid the prior art in a way that leaves the claim novel and not obvious in view of the cited prior art, and no equivalent of any subject matter remaining in the claim is intended to be surrendered.

Also, since a dependent claim inherently includes the recitations of the claim or chain of claims from which it depends, it is submitted that the scope and content of any dependent claims that have been herein rewritten in independent form is exactly the same as the scope and content of those claims prior to having been rewritten in independent form. That is, although by convention such rewritten claims are labeled herein as having been "amended," it is submitted that only the format, and not the content, of these claims has been changed. This is true whether a dependent claim has been rewritten to expressly include the limitations of those claims on which it formerly depended or whether an independent claim has been rewritten to include the limitations of claims that previously depended from it. Thus, by such rewriting no equivalent of any subject matter of the original dependent claim is intended to be surrendered. If the Examiner is of a different view, he is respectfully requested to so indicate.

REJECTIONS UNDER 35 U.S.C. 103

Claims 1, 6, 9, 12-16, and 21-24

Claims 1, 6, 9, 12-16, and 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izumi in view of Milton in view of APA and further in view of Sato. Applicants respectfully traverse the rejection.

Independent claims 1 and 9 have been amended to further clarify Applicants' invention. Each amended claim recites, in part: "the first information in said first upstream optical signal and the first information in said first downstream optical signal each contains a control component, a dropped data component and a through data component."

No new matter is added by this amendment, which is fully supported by the original specification, e.g., p. 9, lines 18-21 and p. 11, lines 3-5, which teaches that an incoming stream at a frequency λ_{SRC} is decomposed into three components: a control component, a dropped data component and a through data component.

On page 4 of the Office Action, the Examiner cited Izumi's supervisory signal in Fig. 21 as corresponding to a control information included within an optical signal at a first frequency. However, as clearly shown by Izumi (Fig. 21 and col. 18, line 9 - col. 19, line 39), the control signal is the only component present in the channel wavelength λ_s (the signal directed to the monitoring and controlling circuits 315, 316). As such, there is no teaching or suggestion in Izumi that this wavelength channel λ_s , or the information in this channel, contains three components such as a control component, dropped data component and a through component, as provided in the amended claims 1 and 9.

Since there is no arguments put forth in the Office Action that Milton, APA or Sato teaches or suggests at least this feature missing in Izumi, Applicants submit that, even if combined, Izumi, Milton, APA and Sato still does not render obvious Applicants' invention, as provided in claims 1 and 9.

Thus, claims 1 and 9 are patentable over the combined teaching of Izumi, Milton, APA and Sato.

Since all of the dependent claims that depend from the independent claims include all the limitations of the respective independent claim from which they ultimately depend, each such dependent claim is also allowable over Izumi, Milton, APA and Sato.

Therefore, claims 1, 6, 9, 12-16 and 21-24 are allowable over Izumi, Milton, APA and Sato under 35 U.S.C. 103. As such, the rejection should be withdrawn.

Claims 2-5, 7-8 and 10-11

Claims 2-5, 7-8, and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Izumi in view of Milton in view of APA and Sato and further in view of Darcie.

Each ground of rejection applies only to dependent claims, and each is predicated on the validity of the rejection under 35 U.S.C. 103 given Izumi in view of Milton in view of APA and further in view of Sato. Since the rejection under 35 U.S.C. 103 given Izumi in view of Milton in view of APA and further in view of Sato has been overcome, as described hereinabove, and there is no argument put forth by the Office Action that Darcie supplies that which is missing from Izumi in view of Milton in view of APA and further in view of Sato to render the independent claims obvious, these grounds of rejection cannot be maintained.

Therefore, claims 2-5, 7-8 and 10-11 are allowable under 35 U.S.C. 103. As such, the rejection should be withdrawn.

Claim 25

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Izumi in view of Milton in view of APA and further in view of Sato. Applicants respectfully traverse the rejection.

Claim 25 has been amended to further clarify Applicants' invention, and recites, in part: "each of the optical signals at said first frequency contains a control component, a dropped data component and a through data component."

No new matter is added by this amendment, which is fully supported by the original specification, e.g., p. 9, lines 18-21 and p. 11, lines 3-5, which teaches that incoming stream at a frequency λ_{SRC} is decomposed into three components: a control component, a dropped data component and a through data component.

Since the amended claim 25 contains relevant features that are similar to those of amended claims 1 and 9, for the same reasons set forth above in connection with claims 1 and 9, Applicants submit that the amended claim 25 is also patentable over the combined teaching of Izumi, Milton, APA and Sato.

As such, the rejection should be withdrawn.

CONCLUSION

It is respectfully submitted that the Office Action's rejections have been overcome and that this application is now in condition for allowance. Reconsideration and allowance are, therefore, respectfully solicited.

If, however, the Examiner still believes that there are unresolved issues, the Examiner is invited to call Eamon Wall at (732) 530-9404 so that arrangements may be made to discuss and resolve any such issues.

Respectfully submitted,

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